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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,037	03/15/2007	Orlei da Silva Choai	40146	9489
116 7590 09/17/2009 PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108				
EXAMINER CUMBESS, YOLANDA R				
ART UNIT 3651		PAPER NUMBER		
MAIL DATE 09/17/2009		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/576,037

**Applicant(s)**

CHOAI, ORLEI DA SILVA

**Examiner**

YOLANDA CUMBESS

**Art Unit**

3651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 May 2009.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 36-80 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 16 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-893)  
4) ☐ Interview Summary (PTO-413)  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_  
Paper No(s)/Mail Date 2/21/2009

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to claims 36-80 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 36, 38, 41, 46, 50-51, 55, 59-61, 68, 72-74, and 78 are rejected under 35 U.S.C. 102(b) as being anticipated by Smithers (US Patent No. 3,978,642. Relative to claims 36, 38, 41, 46, 50-51, 55, 59-61, 68, 72-74, and 78, Smithers discloses: a vacuum interface (20)(Fig. 4) for connecting to a vacuum source (Col. 3, lines 9-11); a transfer device (A)(Fig. 3-4) for transferring flaccid materials or pieces ("bacon slices") from a first transport means (C)(Fig. 6) to a second transport means (D)(Fig. 6) or to a weighing system, wherein the materials or pieces are delivered to said transfer device (A) via the first transport means (C)(Col. 2, lines 50-55), said transfer device (A) including a cylinder body (15)(Fig. 4, 7) that can be rotated (Col. 2, lines 60-65), wherein said cylinder body is provided with a plurality of holes (see holes on surface of Ref. 15, near Ref. 24) through an outer surface of said cylinder body (15)(Fig. 4); and a plurality of vacuum connection means (see spaced passages of Ref. 24) provided inside said cylinder body for connecting said vacuum interface (20)(Fig. 4) to said holes (Col. 3, lines 10-14), said transfer device (A) transfers the materials or pieces ("bacon slices") from the first transport means (C)(Fig. 6) to the second transport means (D) or to said

weighing system by rotating said cylinder body (15) while the materials or pieces are held in place by a vacuum provided at holes in communication with the materials or pieces (Col. 3, lines 10-53); said materials are delivered to said transfer device in an accumulated form (Fig. 6)(Col. 4, lines 10-20); wherein each one of said vacuum connection means (24) includes means that are placed inside said cylinder (A)(Fig. 7)(Col. 3, lines 10-15); each one of said vacuum connection means (24) is connected to the cylinder body (see body of A), and each one of said vacuum connection means (24) connects one of the holes on the cylindrical body outer surface (15) to a corresponding one of a plurality of additional holes (see holes on opposite end of Ref. 24, connected to inside surface of Ref. 14) arranged on an end of the cylinder body (Fig. 6-7); the items or pieces that are supplied via the first transport means (C) to a transfer location (Fig. 6) and are accumulated at the transfer location until held by the transfer device (Col. 4, lines 22-43); said cylinder body (15) is placed at the transfer location with an axis placed essentially horizontally (Fig. 6); a transfer device (A)(Fig. 4, 7) for transferring materials or pieces from a first transport means (C) to a second transport means (D) or to a weighing system, wherein the materials or pieces are delivered to said transfer device (A) via the first transport means (C), said transfer device including: a rotating cylinder body (15) having a plurality of first holes (see holes on surface of Ref. 15) on a surface of the cylindrical body (15)(Fig. 7), said cylinder body (15) also have a plurality of second holes (see holes on interior surface of Ref. 14) on an end of said cylinder body, and a plurality of connections (24), wherein each one of said first holes is connected to a corresponding one of said second holes via one of said plurality of connections

(14)(Fig. 3-4, 6-7); a vacuum interface (20) connected to a vacuum source and connected to said transfer device (A), said second holes on said transfer device are connected to said vacuum source (20) through a vacuum path (see path of Ref. 23)(Fig. 4), and wherein said transfer device transfers the materials or pieces from the first transport means (C) to the second transport means (D) or to the weighing system by rotating the cylinder body and by utilizing vacuum at said first holes for holding said materials or pieces, and the materials or pieces are released from said holding by removing the vacuum at said first holes (see holes on outside surface of Ref. 15) to transfer the materials or pieces to the second transport means (D) or to the weighing system (Fig. 6-7); a transfer device (A) for transferring materials or pieces from a first transport means (C) to a second transport means (D) or to a weighing system, wherein the materials or pieces are delivered to said transfer device (A) via the first transport means (C), said transfer device including: a rotating cylinder body (Ref. 15) having a plurality of first holes (see holes on Ref. 15) on a surface of the cylindrical body, said cylinder body also have a plurality of second holes (see holes on surface of Ref. 14) connected to a vacuum interface (20), and a plurality of connections (24), wherein each one of said first holes is connected to a corresponding one of said second holes via one of said plurality of connections (24)(Fig. 6); said vacuum interface (20) is connected to a vacuum source, and said transfer device (A) transfers the materials or pieces from the first transport means (C) to the second transport means (D) or to the weighing system by rotating the cylinder body and by utilizing vacuum at said first holes (see holes on Ref. 15) for holding said materials or pieces, and wherein the materials or pieces are

released from said holding by removing the vacuum at said first holes to transfer the materials or pieces to the second transport means (D) or to the weighing system (Col. 3, lines 10-53).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 39-40, 42-45, 47-49, 56-57, 65-67, 69-70, and 79-80 rejected under 35 U.S.C. 103(a) as being unpatentable over Smithers in view of Staton (US Patent No. 4,722,432). Smithers discloses all claim limitations, but does not expressly disclose: said vacuum interface includes a flange coupled to said vacuum connection means; said flange includes a vacuum distribution chamber; a plurality of tubes provided within said cylindrical body, wherein each one of said vacuum connection means includes one of said tubes for connecting to at least one of said holes; each one of said tubes are connected to the cylinder body and each one of said tubes connect one of the holes on the outer surface to a corresponding one of a plurality of additional holes arranged in a circle on an end of the cylinder body; said vacuum interface includes a flange that faces the end of the cylinder having the additional holes and has a passage arranged in an arc having a radius substantially equal to the radius of the circle on which the additional

holes are arranged; the length of the arc determines the angular distance for which the materials or pieces are held in place by the vacuum at the holes on the cylinder body; a flange that faces the end of the cylinder having the additional holes and has a passage arranged in a pattern corresponding to the additional holes; each of said holes on the cylindrical surface has a socket attached thereto and provided on the surface of said cylinder body for contacting and holding the materials or pieces; said sockets include one or more of: an oval nozzle resulting from an inclined cut at an end of the cylinder body forming the socket, a circular nozzle formed by a normal cross-section of the cylinder body forming the socket, a hollow truncated cone nozzle formed by beveling the normal cross-section of a straight end of the cylinder body forming the socket, a circular nozzle formed by a ring type cylindrical boss on a top of the cylinder body forming the socket and/or a rectangular nozzle on a top end of the cylinder body forming the socket.

Staton discloses: said vacuum interface includes a flange (50)(Fig. 4) coupled to a vacuum connection means (Col. 4, lines 1-10); said flange (50) includes a vacuum distribution chamber (Col. 5, lines 25-35); a plurality of tubes (78a-h)("flexible hosing") provided within said cylindrical body (Col. 4, lines 42-50), each one of said vacuum connection means includes one of said tubes (78a-h) for connecting to at least one of the holes (Fig. 3); each one of said tubes (78a-h) are connected to the cylinder body (46) and each one of said tubes connect one of the holes on the outer surface (see outer surface of Ref. 46) to a corresponding one of a plurality of additional holes arranged in a circle on an end of the cylinder body (see holes near center of Ref. 46);

said vacuum interface includes a flange (50) that faces the end of the cylinder (Fig. 4) having the additional holes (see holes near 92, 90, 96) and has a passage arranged in an arc (see radius of groove of Ref. 86) having a radius substantially equal to the radius of the circle on which the additional holes are arranged (Fig. 4); the length of the arc determines the angular distance for which the materials or pieces are held in place by the vacuum at the holes on the cylinder body (Col. 5, lines 1-15, Col. 6, lines 30-40); a flange (50) that faces the end of the cylinder (46) having the additional holes (92, 90, 96) and has a passage arranged in a pattern corresponding to the additional holes (Fig. 4); each of said holes on the cylindrical surface has a socket (see sockets on end of Ref. 78a-h) attached thereto and provided on the surface of said cylinder body (46) for contacting and holding the materials or pieces; said sockets include one or more of: an oval nozzle resulting from an inclined cut at an end of the cylinder body forming the socket, a circular nozzle (see Ref. 48, which is circular)(Col. 4, lines 35-50) formed by a normal cross-section of the cylinder body forming the socket, a hollow truncated cone nozzle formed by beveling the normal cross- section of a straight end of the cylinder body forming the socket, a circular nozzle formed by a ring type cylindrical boss on a top of the cylinder body forming the socket and/or a rectangular nozzle on a top end of the cylinder body forming the socket.

Stanton discloses the flange, vacuum distribution chamber, tubes, sockets, and nozzles as mentioned above for the purpose of providing an apparatus for transferring products with enhanced flexibility and controlled application of air pressure by the position and arcuate length of the vacuum (Col. 2, lines 45-60).



It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Smithers with the flange, vacuum distribution chamber, tubes, sockets, and nozzles as taught in Stanton for the purpose of providing an apparatus for transferring products with enhanced flexibility and controlled application of air pressure by the position and arcuate length of the vacuum.

Claims 37, 52, 58, 62, 71, and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smithers as applied to claim 36, 55, and 68 above, and further in view of Mally (US Patent No. 5,391,386). Relative to claims 37, 52, 58, 62, 71 and 75, Smithers in view of Stanton discloses all claim limitations, but does not expressly disclose: said materials are delivered to said transfer device in an unordered form; said pieces may differ in size, shape, thickness, and/or weight from each other.

Mally teaches a transfer device (30)(Fig. 3) wherein said materials (29) are delivered to said transfer device in an unordered form (the food slices are arranged in different positions along belt, near Ref. 27)(Fig. 3)(Col. 1, lines 40-50)(Col. 3, lines 55-60); and said pieces differ in size, shape, thickness, and/or weight (Fig. 3) from each other for the purpose of providing an improved device for transferring multiple food product slices from a slicing location to a deposit location so that the food products do not curl. Further, providing a transfer device so that the materials are delivered in an unordered form, and wherein the materials vary in size and thickness is a matter of design choice depending on the type of food product being conveyed.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Smithers with the materials delivered in an unorderly form, and wherein materials vary in size and thickness taught in Mally for the purposes of providing an improved device for transferring multiple food product slices from a slicing location to a deposit location so that the food products do not curl and as an obvious matter of design choice.

Claims 54, 64, and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smithers as applied to claims 36 and 55, and 68 above, and further in view of LaPlace et al (US Patent No. 6,595,739). Relative to claims, 36, 55, and 68, Smithers and Stanton disclose all claim limitations, but do not expressly disclose said pieces that are delivered by said transfer device are being graded. LaPlace teaches a transfer device, wherein said pieces that are delivered by said transfer device are being graded (Col. 4, lines 20-35) for the purpose of providing an apparatus capable of transferring slices of food products at high speeds and with high reliability (Col. 1, lines 38-43).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Smithers with the pieces that are graded as taught in LaPlace for the purpose of providing an apparatus capable of transferring slices of food products at high speeds and with high reliability.

Claims 53, 63, and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smithers as applied to claims 36, 55, and 68 above, and further in view of Wadell (US Patent No. 5,336,502). Relative to claims 53, 63 and 76, Smithers discloses all claim limitations, but does not expressly disclose: pieces that are not caught by the rotating cylinder body can continue to a discharge point in order to be placed back on the first transport means.

Wadell teaches pieces that are not caught by the rotating cylinder body (11)(Fig. 1-2) can continue to a discharge point in order to be placed back on the first transport means (Col. 3, lines 62-67)(Abstract) in order to provide a novel infeed end to an endless conveyor belt that allows excess layers of food product to be recirculated on an upper run (Col. 1, lines 35-60).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Smithers so that the pieces that are not caught by the rotating cylinder body can continue to a discharge point in order to be placed back on the first transport means as taught in Wadell in order to provide a novel infeed end to an endless conveyor belt that allows excess layers of food product to be recirculated on an upper run.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOLANDA CUMBESS whose telephone number is (571)270-5527. The examiner can normally be reached on MON-THUR 9AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GENE CRAWFORD can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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